

PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

PCT/EP 03/08465

International Application No.

31 JUL 2003 (31.07.03)

International Filing Date

EUROPEAN PATENT OFFICE  
PCT INTERNATIONAL APPLICATION  
Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum) 3413PTWO/er

## Box No. I TITLE OF INVENTION

Spirobifluorene derivatives, their preparation and uses thereof

## Box No. II APPLICANT

 This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

UNIVERSITA' DEGLI STUDI DI ROMA "LA SAPIENZA"  
Piazzale Aldo Moro 5  
00185 ROMA - ITALY

Telephone No.

Facsimile No.

Teleprinter No.

Applicant's registration No. with the Office

State (that is, country) of nationality:

IT

State (that is, country) of residence:

IT

This person is applicant for the purposes of:

 all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

## Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

BAGALA' RAMPAZZO Liliana  
Via del Casaletto 167  
00126 ROMA - ITALY

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

IT

State (that is, country) of residence:

IT

This person is applicant for the purposes of:

 all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box Further applicants and/or (further) inventors are indicated on a continuation sheet.

## Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

 agent common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

GERVASI Gemma  
NOTARBARTOLO & GERVASI S.p.A.  
Corso di Porta Vittoria 9  
20122 MILAN - ITALY

Telephone No.

+39 02541799.1

Facsimile No.

+39 0254179920

Teleprinter No.

Agent's registration No. with the Office

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

## Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

If none of the following sub-boxes is used, this sheet should not be included in the request.

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**FIORAVANTI Giulia**  
Via della Giustiniana 220  
00188 ROMA - ITALY

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

IT

State (that is, country) of residence:

IT

This person is applicant

 all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**MATTIELLO Leonardo**  
Via Silla 3  
00192 ROMA - ITALY

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

IT

State (that is, country) of residence:

IT

This person is applicant

 all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant

 all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant

 all designated States all designated States except the United States of America the United States of America only the States indicated in the Supplemental Box Further applicants and/or (further) inventors are indicated on another continuation sheet.

## Box No. V DESIGNATION OF STATES

Mark the applicable check-boxes below; at least one must be marked.

The following designations are hereby made under Rule 4.9(a):

## Regional Patent

AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT (*if other kind of protection or treatment desired, specify on dotted line*) .....

EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT .....

EP European Patent: AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, SI Slovénia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT .....

OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guiné-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (*if other kind of protection or treatment desired, specify on dotted line*) .....

National Patent (*if other kind of protection or treatment desired, specify on dotted line*):

<input checked="" type="checkbox"/> AE United Arab Emirates .....	<input checked="" type="checkbox"/> GM Gambia .....	<input checked="" type="checkbox"/> NZ New Zealand .....
<input checked="" type="checkbox"/> AG Antigua and Barbuda .....	<input checked="" type="checkbox"/> HR Croatia .....	<input checked="" type="checkbox"/> OM Oman .....
<input checked="" type="checkbox"/> AL Albania .....	<input checked="" type="checkbox"/> HU Hungary .....	<input checked="" type="checkbox"/> PH Philippines .....
<input checked="" type="checkbox"/> AM Armenia .....	<input checked="" type="checkbox"/> ID Indonesia .....	<input checked="" type="checkbox"/> PL Poland .....
<input checked="" type="checkbox"/> AT Austria .....	<input checked="" type="checkbox"/> IL Israel .....	<input checked="" type="checkbox"/> PT Portugal .....
<input checked="" type="checkbox"/> AU Australia .....	<input checked="" type="checkbox"/> IN India .....	<input checked="" type="checkbox"/> RO Romania .....
<input checked="" type="checkbox"/> AZ Azerbaijan .....	<input checked="" type="checkbox"/> IS Iceland .....	<input checked="" type="checkbox"/> RU Russian Federation .....
<input checked="" type="checkbox"/> BA Bosnia and Herzegovina .....	<input checked="" type="checkbox"/> JP Japan .....	<input checked="" type="checkbox"/> SC Seychelles .....
<input checked="" type="checkbox"/> BB Barbados .....	<input checked="" type="checkbox"/> KE Kenya .....	<input checked="" type="checkbox"/> SD Sudan .....
<input checked="" type="checkbox"/> BG Bulgaria .....	<input checked="" type="checkbox"/> KG Kyrgyzstan .....	<input checked="" type="checkbox"/> SE Sweden .....
<input checked="" type="checkbox"/> BR Brazil .....	<input checked="" type="checkbox"/> KP Democratic People's Republic of Korea .....	<input checked="" type="checkbox"/> SG Singapore .....
<input checked="" type="checkbox"/> BY Belarus .....	<input checked="" type="checkbox"/> KR Republic of Korea .....	<input checked="" type="checkbox"/> SK Slovakia .....
<input checked="" type="checkbox"/> BZ Belize .....	<input checked="" type="checkbox"/> KZ Kazakhstan .....	<input checked="" type="checkbox"/> SL Sierra Leone .....
<input checked="" type="checkbox"/> CA Canada .....	<input checked="" type="checkbox"/> LC Saint Lucia .....	<input checked="" type="checkbox"/> TJ Tajikistan .....
<input checked="" type="checkbox"/> CH & LI Switzerland and Liechtenstein .....	<input checked="" type="checkbox"/> LK Sri Lanka .....	<input checked="" type="checkbox"/> TM Turkmenistan .....
<input checked="" type="checkbox"/> CN China .....	<input checked="" type="checkbox"/> LR Liberia .....	<input checked="" type="checkbox"/> TN Tunisia .....
<input checked="" type="checkbox"/> CO Colombia .....	<input checked="" type="checkbox"/> LS Lesotho .....	<input checked="" type="checkbox"/> TR Turkey .....
<input checked="" type="checkbox"/> CR Costa Rica .....	<input checked="" type="checkbox"/> LT Lithuania .....	<input checked="" type="checkbox"/> TT Trinidad and Tobago .....
<input checked="" type="checkbox"/> CU Cuba .....	<input checked="" type="checkbox"/> LU Luxembourg .....	<input checked="" type="checkbox"/> TZ United Republic of Tanzania .....
<input checked="" type="checkbox"/> CZ Czech Republic .....	<input checked="" type="checkbox"/> LV Latvia .....	<input checked="" type="checkbox"/> UA Ukraine .....
<input checked="" type="checkbox"/> DE Germany .....	<input checked="" type="checkbox"/> MA Morocco .....	<input checked="" type="checkbox"/> UG Uganda .....
<input checked="" type="checkbox"/> DK Denmark .....	<input checked="" type="checkbox"/> MD Republic of Moldova .....	<input checked="" type="checkbox"/> US United States of America .....
<input checked="" type="checkbox"/> DM Dominica .....	<input checked="" type="checkbox"/> MG Madagascar .....	<input checked="" type="checkbox"/> UZ Uzbekistan .....
<input checked="" type="checkbox"/> DZ Algeria .....	<input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia .....	<input checked="" type="checkbox"/> VC Saint Vincent and the Grenadines .....
<input checked="" type="checkbox"/> EC Ecuador .....	<input checked="" type="checkbox"/> MN Mongolia .....	<input checked="" type="checkbox"/> VN Viet Nam .....
<input checked="" type="checkbox"/> EE Estonia .....	<input checked="" type="checkbox"/> MW Malawi .....	<input checked="" type="checkbox"/> YU Yugoslavia .....
<input checked="" type="checkbox"/> ES Spain .....	<input checked="" type="checkbox"/> MX Mexico .....	<input checked="" type="checkbox"/> ZA South Africa .....
<input checked="" type="checkbox"/> FI Finland .....	<input checked="" type="checkbox"/> MZ Mozambique .....	<input checked="" type="checkbox"/> ZM Zambia .....
<input checked="" type="checkbox"/> GB United Kingdom .....	<input checked="" type="checkbox"/> NO Norway .....	<input checked="" type="checkbox"/> ZW Zimbabwe .....

Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:

<input checked="" type="checkbox"/> NI Nicaragua .....	<input checked="" type="checkbox"/> SY Syria .....	<input type="checkbox"/>
<input checked="" type="checkbox"/> PG Papua New Guinea .....	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (*Confirmation (including fees) must reach the receiving Office within the 15-month time limit.*)

**Box No. VI PRIORITY CLAIM**

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country or Member of WTO	regional application: * regional Office	international application: receiving Office
item (1) <u>1 August 2002</u> <u>( 01 08 2002 )</u>	RM2002A000411	[Italy] AA	IT	
item (2)				
item (3)				
item (4)				
item (5)				

Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (*only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office*) identified above as:

all items    item (1)    item (2)    item (3)    item (4)    item (5)    other, see  
Supplemental Box

\* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)).

**Box No. VII INTERNATIONAL SEARCHING AUTHORITY.**

**Choice of International Searching Authority (ISA) (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):**

ISA /

**Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):**

Date (*day/month/year*)

### Number

**Country (or regional Office)**

**Box No. VIII. DECLARATIONS**

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable check-boxes below and indicate in the right column the number of each type of declaration):

### Number of declarations

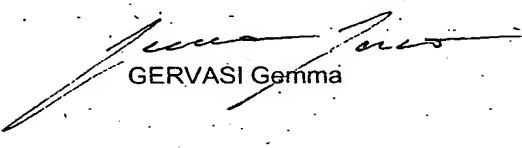
- Box No. VIII (i) Declaration as to the identity of the inventor
- Box No. VIII (ii) Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent
- Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application
- Box No. VIII (iv) Declaration of inventorship (only for the purposes of the designation of the United States of America)
- Box No. VIII (v) Declaration as to non-prejudicial disclosures or exceptions to lack of novelty

## Box No. IX CHECK LIST; LANGUAGE OF FILING

This international application contains:		Number of items
(a) in paper form, the following number of sheets:		
request (including declaration sheets)	5	
description (excluding sequence listings and/or tables related thereto)	23	
claims	5	
abstract	1	
drawings		
<b>Sub-total number of sheets</b>	<b>34</b>	
sequence listings		
tables related thereto		
(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)		
<b>Total number of sheets</b>	<b>34</b>	
(b) <input type="checkbox"/> only in computer readable form (Section 80(1)(a)(i))		
(i) <input type="checkbox"/> sequence listings		
(ii) <input type="checkbox"/> tables related thereto		
(c) <input type="checkbox"/> also in computer readable form (Section 80(1)(a)(ii))		
(i) <input type="checkbox"/> sequence listings		
(ii) <input type="checkbox"/> tables related thereto		
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the		
<input type="checkbox"/> sequence listings		
<input type="checkbox"/> tables related thereto		
(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)		
Figure of the drawings which should accompany the abstract:	Language of filing of the international application:	ENGLISH

## Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

  
GERVASI Gemma

Milan, 30 July 2003

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1. Date of actual receipt of the purported international application:-

31 JUL 2003 (31.07.03)

2. Drawings:

 received:

NONE

 not received:

3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:

4. Date of timely receipt of the required corrections under PCT Article 11(2):

5. International Searching Authority (if two or more are competent): ISA /

6.  Transmittal of search copy delayed until search fee is paid

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

**Box No. VIII (iv) DECLARATION: INVENTORSHIP (only for the purposes of the designation of the United States of America)**

*The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.*

**Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv))  
for the purposes of the designation of the United States of America:**

I hereby declare that I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/EP03/08465 ..... (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: Italy No. RM2002A000411 of 1 August 2002 .....

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: Liliana BAGALA' RAMPAZZO .....

Residence: Roma - Italy .....

(city and either US state, if applicable, or country)

Mailing Address: Via del Casalotto 167, Roma - Italy .....

Citizenship: Italian .....

Inventor's Signature: *X. Liliana Bagala' Rampazzo*  
(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: 4 August 2003 .....

(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

Name: Giulia FIORAVANTI .....

Residence: Roma - Italy .....

(city and either US state, if applicable, or country)

Mailing Address: Via della Giustinianina 220, Roma - Italy .....

Citizenship: Italian .....

Inventor's Signature: *X. Giulia Fioravanti*  
(if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)

Date: 4 August 2003 .....

(of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iv)".

**Continuation of Box No. VIII (i) to (v) DECLARATION**

If the space is insufficient in any of Boxes Nos. VIII (i) to (v) to furnish all the information, including in the case where more than two inventors are to be named in Box No. VIII (iv), in such case, write "Continuation of Box No. VIII ..." (indicate the item number of the Box) and furnish the information in the same manner as required for the purposes of the Box in which the space was insufficient. If additional space is needed in respect of two or more declarations, a separate continuation box must be used for each such declaration. If this Box is not used, this sheet should not be included in the request.

**CONTINUATION OF BOX NO. VIII (iv) DECLARATION: INVENTORSHIP**

Name: Leonardo MATTIELLO

Residence: Roma - Italy  
(city and either US state, if applicable, or country)

Mailing Address: Via Silla 3, Roma - Italy

Citizenship: Italian

Inventor's Signature:

Date: . . . . . 4 August 2003 . . . . .

Name:

Residence:  
(city and either US state, if applicable, or country)

Mailing Address:

Citizenship:

Inventor's Signature:

Date: . . . . .

Name:

Residence:  
(city and either US state, if applicable, or country)

Mailing Address:

Citizenship:

Inventor's Signature:

Date: . . . . .